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EXAMINER	
SHAPIRO, LEONID	

ART UNIT	PAPER NUMBER
2677	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/835,194	OKAMOTO ET AL.	
	Examiner	Art Unit	
	Leonid Shapiro	2677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9,13,15,21,22,24-26,28,30,34,41,42,44-46,48 and 50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-9,13,15,21-22,24-26,28,30,34,41-42,44-46,48,50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (US 5,546,134).

As to claim 1, Lee teaches an image reproducing method for reproducing an image by a display apparatus having a plurality of pixels based on a picture signal including a pixel signal representing information of each pixel, comprising the steps of:

performing an operation to obtain an average signal level which is an average level of all the pixel signals (See Fig. 5, items 20,10, in description See Col. 4, Lines 67-68 and Col.5, Lines 1-11), then, setting an input signal - output brightness property which represents variations in brightness of a pixel with respect to the level of a pixel signal in accordance with the average signal level (See Fig.3, items y1,y2, in description See Col. 3, Lines 29-35);

reproducing an image so that an exponential value of an exponential function approximately representing the input signal - output brightness property thus set increases with the increase of the average signal level (See Fig. 3, item Y1, Fig. 4, item a, Col. 3, Lines 23-52); and

reproducing the image so that maximum output brightness (in the reference is equivalent of the c area of Figure 4) of a pixel of the display apparatus varies in

accordance with the average signal level, wherein the image is reproduced so that the maximum output brightness becomes smaller as the average signal level increases (See Fig. 3, item Y2, Fig. 4, item c, Col. 3, Lines 23-52);

wherein the image is reproduced by performing an operation to obtain the maximum output brightness of a pixel of the display apparatus (in the reference is equivalent of the c area of Figure 4) from the average signal level, performing compensation of the picture signal subject to compensation in accordance with the input signal-output brightness property thus set based on a result of the operation to obtain the maximum output brightness (in the reference is equivalent of the c area of Figure 4), and feeding the display apparatus with the picture signal subject to compensation (See Fig. 3, item Y2, Fig. 4, item c, Col. 3, Lines 23-52).

Notice, that in claims of this Application **maximum output brightness** is equivalent to **brightness** in the Lee reference.

As to claim 3, Lee teaches when the pixel signal includes a brightness signal representing brightness information of each pixel, the average signal level is obtained by performing an operation to obtain an average level of all the brightness signals (See Fig. 5, item 20, in description See Col. 5, lines 4-6).

As to claim 4, Lee teaches in order to reproduce the image based on the picture signal including a brightness signal subject to compensation, the input signal - output brightness property which represents variations in brightness of a pixel with respect to the level of the brightness signal is set in accordance with the average signal level, and compensation is performed on the brightness signal so as to satisfy the input signal -

output brightness property thus set (See Fig. 3-5, items y1,y2, in description See Col. 3, Lines 36-57).

As to claim 5, Lee teaches the image is reproduced by performing compensation on the picture signal so as to satisfy the input signal -output brightness property that is set, and outputting the picture signal subject to compensation to the display apparatus (See Fig. 3-5, items y1,y2, in description See Col. 3, Lines 36-57).

As to claim 6, Lee teaches the input signal - output brightness property is set by performing an operation to obtain an exponential value in which the input signal - output bright property is approximately represented by an exponential function from the average signal level, and compensation for the picture signal is made by performing compensation of the picture signal according to an input signal - output brightness property corresponding to the input signal - output brightness property that is set, thereafter compensating for deviation from a linear property of the input signal -output brightness property of the display apparatus (See Fig. 3-5, items y1,y2, in description See Col. 3, Lines 36-57).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 9, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claim 1 above in view of Tadashi (JP 06-006820).

As to claim 9, Lee does not disclose a color video signal including color component signals of three primary colors.

Tadashi teaches a color video signal including color component signals of three primary colors (See Drawing 1, items R, G and B).

It would have been obvious to one of ordinary skill in the art in the time of invention to use Tadashi approach in the Lee method in order to improve the contrast of a display picture on a liquid crystal display device by implementing white level expansion and black level expansion corresponding respectively to a high APL and a low APL (See PURPOSE in Tadashi reference).

As to claims 15, Lee does not a brightness signal which represents brightness information of each pixel.

Tadashi teaches a brightness signal which represents brightness information of each pixel (See Drawing 1, item 40, in Detailed Description See page 2, paragraph 0009).

It would have been obvious to one of ordinary skill in the art in the time of invention to use Tadashi approach in the Lee method in order to improve the contrast of a display picture on a liquid crystal display device by implementing white level expansion and black level expansion corresponding respectively to a high APL and a low APL (See PURPOSE in Tadashi reference).

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as aforementioned in claim 6 in view of Eglit (US Parent No. 5,734,362).

Lee does not show the compensation for deviation from the linear property of the input signal - output brightness property of the display apparatus is performed by converting the pixel signal by an inverse function of a function represents the input signal - output brightness property of the display apparatus.

Eglit teaches the compensation for deviation from the linear property of the input signal - output brightness property of the display apparatus is performed by converting the pixel signal by an inverse function of a function which represents the input signal - output brightness property of the display apparatus (See Fig. 1A-1C, in description See Col. 1, Lines 46-52).

It would have been obvious to one of ordinary skill in the art in the time of invention to use Eglit approach in the Lee method in order implement exponential gamma removal (See Col. 1, line 60 of the Eglit reference).

4. Claims 8, 22, 24-26, 42, 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Uehara et al. (US Patent No. 6,289,162 B1).

As to claim 22, Lee teaches an image display apparatus which includes a display section having a plurality of pixels for displaying an image and receives a picture signal including a pixel signal representing information of each pixel (See Fig. 5, item Output Video Signal, Col. 1, Lines 8-12), comprising:

an average signal level operation section for performing an operation to obtain an average signal level which is an average level of all the pixel signals (See Fig. 5, item 20, in description See Col. 5, Lines 4-6);

an input signal - output brightness property setting section for setting an input signal - output brightness property which represents variations in brightness of a pixel with respect to a level of the pixel signal in accordance with the average signal level (See Fig. 5, item 30, in description See Col. 5, Lines 6-11);

a maximum output brightness adjustment section for adjusting maximum output brightness of the pixel of the display section (in the reference is equivalent of the c area of Figure 4) in accordance with average signal level (See Fig. 5, items 20, 30, Col. 5, Lines 1-34).

and a signal compensation section for performing compensation of a picture signal so as to satisfy the input signal - output brightness property thus set (See Fig. 5, items 15,20.30, in description See Col. 5, Lines 1-11);

a signal conversion section for converting a picture signal subject to compensation in the signal compensation section based on an operational result of the maximum output brightness, so as to output the picture signal subject to conversion to the display apparatus (See Fig. 5, items 15,20.30, in description See Col. 5, Lines 1-11);

wherein:

the input signal-output brightness property setting section sets the input signal-output brightness property by performing an operation based on the average

signal level so that an exponential value of an exponential function approximately representing the input-output brightness property increases with an increase of the average signal level (See Fig. 3, item Y1, Fig. 4, item a, Col. 3, Lines 23-52); and

the maximum output (in the reference is equivalent of the c area of Figure 4) brightness section (See Fig. 5, items 20, 30) adjusts the maximum output brightness so that the maximum output brightness becomes smaller as the average signal level increases (See Fig. 3, item Y2, Fig. 4, item c, Col. 3, Lines 23-52);

the signal compensation section includes (See Fig. 5, items 20, 30 , Col. 5, Lines 1-34): a first signal compensation section for performing compensation of the pixel signal by the input signal-output brightness property corresponding to the input signal output brightness property that is set by the operation based on the exponential value, and a second signal compensation section for compensation for deviation from a linear operation of the input signal-output brightness property of the display section (See Figs 3-4, items Y1-Y2, a, c, Col. 3, Lines 23-52).

Lee does not show a brightness signal represents brightness information of each pixel and chromaticity signal represents chromaticity information of each signal.

Uehara et al. teaches the luminance level and chromaticity level in image signal (See from Col. 2, Line 67 to Col. 3, Line 4).

It would have been obvious to one of ordinary skill in the art in the time of invention to use Uehara et al. approach in the Lee method to employ a brightness signal which represents brightness information of each pixel and chromaticity signal which represents chromaticity information of each signal in order to provide image

reproduction method and apparatus (See Col. 2, Lines 19-20 in Uehara et al. reference).

As to claim 42, Lee teaches a picture signal compensation device which receives a picture signal including a pixel signal representing information of each pixel, and performs compensation of the picture signal so as to output picture signal subject to a compensation to a display apparatus having a plurality of pixels (See Fig. 5, item Output Video Signal, Col. 1, Lines 8-12), comprising:

an average signal level operation section for performing an operation to obtain an average signal level which is an average level of all the pixel signals (See Fig. 5, item 20, in description See Col. 5, Lines 4-6);

an input signal - output brightness property setting section for setting an input signal - output brightness property which represents variations in brightness of a pixel with respect to a level of the pixel signal in accordance with the average signal level (See Fig. 5, item 30, in description See Col. 5, Lines 6-11);

a maximum output brightness adjustment section for adjusting maximum output brightness of the pixel of the display section (in the reference is equivalent of the c area of Figure 4) in accordance with average signal level (See Fig. 5, items 20, 30, Col. 5, Lines 1-34);

a signal compensation section for performing compensation of a picture signal so as to satisfy the input signal - output brightness property thus set (See Fig. 5, items 15,20.30, in description See Col. 5, Lines 1-11);

a signal conversion section for converting a picture signal subject to compensation in the signal compensation section based on an operational result of the maximum output brightness, so as to output the picture signal subject to conversion to the display apparatus (See Fig. 5, items 15,20.30, in description See Col. 5, Lines 1-11);

wherein:

the input signal-output brightness property setting section sets the input signal-output brightness property by performing an operation based on the average signal level so that an exponential value of an exponential function approximately representing the input-output brightness property increases with an increase of the average signal level (See Fig. 3, item Y1, Fig. 4, item a, Col. 3, Lines 23-52); and

the maximum output (in the reference is equivalent of the c area of Figure 4) brightness section (See Fig. 5, items 20, 30) adjusts the maximum output brightness so that the maximum output brightness becomes smaller as the average signal level increases (See Fig. 3, item Y2, Fig. 4, item c, Col. 3, Lines 23-52);

the signal compensation section includes (See Fig. 5, items 20, 30 , Col. 5, Lines 1-34): a first signal compensation section for performing compensation of the pixel signal by the input signal-output brightness property corresponding to the input signal output brightness property that is set by the operation based on the exponential value, and a second signal compensation section for compensation for deviation from a linear operation of the input signal-output brightness property of the display section (See Figs 3-4, items Y1-Y2, a, c, Col. 3, Lines 23-52).

Lee does not show a brightness signal represents brightness information of each pixel and chromaticity signal represents chromaticity information of each signal.

Uehara et al. teaches the luminance level and chromaticity level in image signal (See from Col. 2, Line 67 to Col. 3, Line 4).

It would have been obvious to one of ordinary skill in the art in the time of invention to use Uehara et al. approach in the Lee method to employ a brightness signal which represents brightness information of each pixel and chromaticity signal which represents chromaticity information of each signal in order to provide image reproduction method and apparatus (See Col. 2, Lines 19-20 in Uehara et al. reference).

As to claims 24,44, Lee teaches when the pixel signal includes a brightness signal representing brightness information of each pixel, the average signal level is obtained by performing an operation to obtain an average level of all the brightness signals (See Fig. 5, item 20, in description See Col. 5, lines 4-6).

As to claim 45, Lee teaches in order to reproduce the image based on the picture signal including a brightness signal subject to compensation, the input signal - output brightness property which represents variations in brightness of a pixel with respect to the level of the brightness signal is set in accordance with the average signal level, and compensation is performed on the brightness signal so as to satisfy the input signal - output brightness property thus set (See Fig. 3-5, items y1,y2, in description See Col. 3, Lines 36-57).

As to claims 25 Lee teaches the input signal - output brightness property is set by performing an operation to obtain an exponential value in which the input signal - output bright property is approximately represented by an exponential function, and compensation for the picture signal is made by performing compensation of the picture signal according to an input signal - output brightness property corresponding to the input signal - output brightness property that is set, thereafter compensating for deviation from a linear property of the input signal -output brightness property of the display apparatus (See Fig. 3-5, items y1,y2, in description See Col. 3, Lines 36-57).

As to claims 26, 46, Lee teaches a delay section for delaying output of the pixel signal of the inputted picture signal to the signal compensation section by time required to perform the operation for the average signal level and to set the input signal-output brightness property (See Fig5, item 15, in description See Col. 5, Lines 42-49).

As to claim 8 Uehara et al. teaches the luminance level and chromaticity level in image signal (See from Col. 2, Line 67 to Col. 3, Line 4).

6. Claims 28, 30, 48, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and Uehara et al. as applied to claims 22 and 42 above, and further in view of Tadashi.

As to claims 28, 48 Lee and Uehara et al. do not disclose the input signal output brightness property setting section sets the input signal-output brightness property by performing an operation to obtain an exponential value in which the input signal-output brightness property is approximately represented by an exponential function, in

accordance with the average signal level, and the signal compensation section includes a first signal compensation for performing compensation of the pixel signal according to an input signal-output brightness property corresponds to the input signal-output brightness property that is set, by an operation adopting the exponential value, and a second signal compensation section for performing compensation for deviation from a linear property of the input signal-output brightness property of the display section, the second signal compensation section converts the pixel signal by an inverse function of a function representing the input signal-output brightness property of the display section.

Tadashi teaches the input signal output brightness property setting section sets the input signal-output brightness property by performing an operation to obtain an exponential value in which the input signal-output brightness property is approximately represented by an exponential function, in accordance with the average signal level (See Drawing 4, paragraph 0002), and the signal compensation section includes a first signal compensation for performing compensation of the pixel signal according to an input signal-output brightness property corresponds to the input signal-output brightness property that is set, by an operation adopting the exponential value, and a second signal compensation section for performing compensation for deviation from a linear property of the input signal-output brightness property of the display section (See Drawings 1,3, item 34), the second signal compensation section converts the pixel signal by an inverse function of a function representing the input signal-output brightness property of the display section (See Drawing 3, in Detailed Description See from page 3, paragraph 0016 to page 4, paragraph 0021).

It would have been obvious to one of ordinary skill in the art in the time of invention to use Tadashi approach in the Lee and Uehara et al. method in order to improve the contrast of a display picture on a liquid crystal display device by implementing white level expansion and black level expansion corresponding respectively to a high APL and a low APL (See PURPOSE in Tadashi reference).

As to claims 30,50, Lee and Uehara et al. do not disclose a color component of three primary colors.

Tadashi teaches a color video signal including color component signals of three primary colors (See Drawing 1, items R, G and B).

It would have been obvious to one of ordinary skill in the art in the time of invention to use Tadashi and Uehara et al. approach in the Lee method in order to improve the contrast of a display picture on a liquid crystal display device by implementing white level expansion and black level expansion corresponding respectively to a high APL and a low APL (See PURPOSE in Tadashi reference).

7. Claim 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as aforementioned in claim 1 in view of Hosoi et al. (US Patent No. 6,278,436 B1).

Lee does not show an emission type optical switching element in which emission element function as an optical switching element as well.

Hosoi et al. teaches the plasma display panel which is an emission type optical switching element in which emission element function as an optical switching element as well (See Col. 1, Lines 13-19).

It would have been obvious to one of ordinary skill in the art in the time of invention to use Hosoi et al. approach in the Lee method to employ a an emission type optical switching element in order to improve the contrast of a display picture on a liquid crystal display device by implementing white level expansion and black level expansion corresponding respectively to a high APL and a low APL (See PURPOSE in Tadashi reference).

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as aforementioned in claim 1 in view of Yamazaki et al (US Patent No. 6,399,960 B1).

Lee does not show a display apparatus having an emission element and non-emission type optical switching element.

Yamazaki et al. teaches the active matrix-type flat panel displays with EL units (See Col. 23, lines 50-53).

It would have been obvious to one of ordinary skill in the art in the time of invention to use Yamazaki et al. approach in the Lee method in order to improve the contrast of a display picture on a liquid crystal display device by implementing white level expansion corresponding respectively to a high APL (See PURPOSE in Tadashi reference).

9. Claim 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and Uehara et al. as aforementioned in claims 22 in view of Yamazaki et al. (US Patent No. 6,399,960 B1).

Lee and Uehara et al. do not show a display apparatus having an emission element and non-emission type optical switching element.

Yamazaki et al. teaches the active matrix-type flat panel displays with EL units (See Col. 23, lines 50-53).

It would have been obvious to one of ordinary skill in the art in the time of invention to use Yamazaki et al. approach in the Lee and Uehara et al. method in order to improve the contrast of a display picture on a liquid crystal display device by implementing white level expansion corresponding respectively to a high APL (See PURPOSE in Tadashi reference).

10. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and Uehara et al. as aforementioned in claim 22 in view of Hosoi et al. (US Patent No. 6,278,436 B1).

Lee and Uehara et al. do not show an emission type optical switching element in which emission element function as an optical switching element as well.

Hosoi et al. teaches the plasma display pane! which is an emission type optical switching element in which emission element function as an optical switching element as well (See Col. 1, Lines 13-19).

It would have been obvious to one of ordinary skill in the ad in the time of invention to use Hosoi et al. approach in the Lee, Tadashi and Uehara et al., Nagai method to employ a an emission type optical switching element in order to improve the contrast of a display picture on a liquid crystal display device by implementing white

level expansion and black level expansion corresponding respectively to a high APL and a low APL (See PURPOSE in Tadashi reference).

Response to Argument

11. Applicant's arguments filed on 01/04/06 have been fully considered but they are not persuasive:

On page 3, last paragraph of the Remarks Applicant's stated that y1-y3 are just signal conversion characteristic. However, Lee stated that contrast enhancement is an additional effect of the brightness control (See Col. 1, Lines 37-40) and that brightness correction characteristic correspondent to the calculated average brightness level (See Col. 2, Lines 32-40).

In the same paragraph Applicant's stated that a signal y3 is adjusted by coefficient based on APL. Therefore, Lee reference clearly discloses the direct connection between y1-y3 and output brightness, which is maximum output brightness in the Application, contradicting statement on page 4, 1st paragraph that in contrast to the Lee reference, Applicant's invention teaches maximum output brightness.

On page 4, 1st paragraph, Applicant's stated that maximum output brightness is independent of the gamma compensation part. However, this limitation not in the claims. Specification is not measure of invention. Therefore,limitations contained therein can not be read into claims for the purpose of avoiding the prior art. In re Sporck, 55 CCPA 743, 386 F.2d 924, 155 USPQ 687 (1968).

On page 4, 2nd paragraph, Applicant's stated that while preventing whiteout and glare caused by an entirely bright image, thus improving visibility in a bright portion. This is exactly as Lee teaches: "...results an overall decrease in brightness and a relative contrast enhancement effect of high level values" (See Col. 4, Lines 31-35). The same related to the dark images.

On page 4, 4th paragraph, Applicant's admitted that Lee reference disclose output brightness control, but do not mentioned that it is done according to average signal level. However, Lee reference discloses this limitation at many different places, including: (Col. 1, Lines 7-12).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LS
03.02.06

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